WE CLAIM:

1. A method of coupling a read/write head to a driver circuit having a current source, the method comprising the steps of:

operably coupling a read/write head to a flexible printed circuit, the flexible printed circuit having two opposing terminals for external coupling;

operably coupling a first impedance control circuit in parallel with the current source and a terminal of the flexible printed circuit; and

operably coupling a second impedance control circuit in parallel with the current source and the opposing terminal of the flexible printed circuit;

wherein the first impedance control circuit and the second impedance control circuit are approximately matched in impedance.

2. A method of coupling a read/write head to a driver circuit according to claim 1 further comprising a step of linking the opposing terminals with a capacitor for minimizing DC current loss.

3. An impedance-controlled write driver circuit comprising:

a write head operably coupled to a flexible printed circuit, the flexible printed circuit having two opposing terminals for external coupling;

a symmetrical pair of matched impedance control circuits, each coupled between an opposing terminal of the flexible printed circuit and a write driver circuit ground.

4. An impedance-controlled write driver circuit according to claim 3 configured such that the head voltage V_h may be described by the formula;

$V_h = I_W * (R_h + R_{fpc} + R_o) \div (R_h + R_{fpc})$, wherein;

I_W represents a write head current;

R_h represents a write head resistance;

R_{fpc} represents the resistance of the flexible printed circuit; and

R_o represents a selected internal reference resistance.

5. An impedance-controlled write driver circuit according to claim 3 wherein the matched impedance control circuits each further comprise a resistor having a resistance value of about $R_o/2$, wherein R_o represents a selected internal reference resistance.

6. An impedance-controlled write driver circuit according to claim 3 wherein the matched impedance control circuits each further comprise:

a first resistor having a resistance value of about $R_o/2$ coupled to a first terminal of a capacitor, the capacitor having a second terminal coupled to ground;

a second resistor coupled to the second terminal of the capacitor in parallel with the first resistor, the second resistor having a resistance value of about $R_{dc}/2$; wherein

R_o represents a selected internal reference resistance; and

R_{dc} represents a DC resistance.

7. An impedance-controlled write driver circuit according to claim 3 further comprising:

a first resistor, having a resistance value of about R_o in series with a capacitor, coupled between the two FPC terminals;

wherein the matched impedance control circuits each further comprise a second resistor having a resistance value of about $R_{dc}/2$; wherein

R_o represents a selected internal reference resistance; and

R_{dc} represents a DC resistance of the impedance control circuit.

8. An impedance-controlled write driver circuit according to claim 3 further comprising:

a first resistor, having a resistance value of about R_o in series with a capacitor, coupled between the two FPC terminals, the path between the first resistor and capacitor further comprising a switch;

wherein the matched impedance control circuits each further comprise a second resistor having a resistance value of about $R_{dc}/2$; wherein

R_o represents a selected internal reference resistance; and

R_{dc} represents a DC resistance of the impedance control circuit.

9. An impedance-controlled write driver circuit according to claim 3 further comprising:

a capacitor, coupled between the two flexible printed circuit terminals;

wherein the matched impedance control circuits each further comprise a resistor having a resistance value of about $R_o/2$, and having a first terminal coupled to a flexible printed circuit terminal, the resistor also having a second terminal coupled to the capacitor, wherein R_o represents a selected internal reference resistance; and

a diode coupled between the second terminal of the resistor and ground.

10. An impedance-controlled write driver circuit comprising:

a write head operably coupled to a flexible printed circuit, the flexible printed circuit having two opposing terminals for external coupling;

a symmetrical pair of matched impedance control circuits, each coupled between an opposing terminal of the flexible printed circuit and a write driver circuit ground, the symmetrical pair of matched impedance control circuits configured such that the head voltage V_h may be described by the formula;

$V_h = I_W * (R_h + R_{fpc} + R_o) \div (R_h + R_{fpc})$, wherein;

I_W represents a write head current;

R_h represents a write head resistance;

R_{fpc} represents the resistance of the flexible printed circuit; and

R_o represents a selected internal reference resistance.

11. An impedance-controlled write driver circuit according to claim 10 wherein the matched impedance control circuits each further comprise a resistor having a resistance value of about $R_o/2$, wherein R_o represents a selected internal reference resistance.

12. An impedance-controlled write driver circuit according to claim 10 wherein the matched impedance control circuits each further comprise:

a first resistor having a resistance value of about $R_o/2$ coupled to a first terminal of a capacitor, the capacitor having a second terminal coupled to ground;

a second resistor coupled to the second terminal of the capacitor in parallel with the first resistor, the second resistor having a resistance value of about $R_{dc}/2$; wherein

R_o represents a selected internal reference resistance; and

R_{dc} represents a DC resistance.

13. An impedance-controlled write driver circuit according to claim 10 further comprising:

a first resistor, having a resistance value of about R_o, in series with a capacitor, coupled between the two FPC terminals;

wherein the matched impedance control circuits each further comprise a second resistor having a resistance value of about $R_{dc}/2$; wherein

R_o represents a selected internal reference resistance; and

R_{dc} represents a DC resistance of the impedance control circuit.

14. An impedance-controlled write driver circuit according to claim 10 further comprising:

a first resistor, having a resistance value of about R_o, in series with a capacitor, coupled between the two FPC terminals, the path between the first resistor and capacitor further comprising a switch;

wherein the matched impedance control circuits each further comprise a second resistor having a resistance value of about $R_{dc}/2$; wherein

R_o represents a selected internal reference resistance; and

R_{dc} represents a DC resistance of the impedance control circuit.

15. An impedance-controlled write driver circuit according to claim 10 further comprising:

a capacitor, coupled between the two flexible printed circuit terminals;

wherein the matched impedance control circuits each further comprise a resistor having a resistance value of about $R_o/2$, and having a first terminal coupled to a flexible printed circuit terminal, the resistor also having a second terminal coupled to the capacitor, wherein R_o represents a selected internal reference resistance; and

a diode coupled between the second terminal of the resistor and ground.